

IN THE CLAIMS

Please amend the claims as follows:

Claim 1 (Canceled).

Claim 2 (Currently Amended): A method of forming an adhesive, an ink, a polish, a varnish, a pigment paste, a pigment masterbatch, a filler, a sealant, an insulant, or a cosmetic article comprising forming the adhesive, the ink, the polish, the varnish, the pigment paste, the pigment masterbatch, the filler, the sealant, the insulant, or the cosmetic article with a radiation-curable resin, wherein the ~~The use of a radiation-curable resin is~~ obtained by polymer-analogously reacting

A) at least one ketone-aldehyde resin ~~and/or~~ or

B) at least one urea-aldehyde resin or

A and B) at least one ketone-aldehyde resin and at least one urea-aldehyde resin, and

C) at least one compound comprising at least one ethylenically unsaturated moiety and ~~at the same time~~ at least one moiety which is reactive toward A), ~~and/or~~ B), or A) and B)

~~as a main component, base component or additional component in radiation-curing coating materials, adhesives, inks, including printing inks, polishes, varnishes, pigment pastes and masterbatches, fillers, sealants and insulants and/or cosmetic articles.~~

Claim 3 (Currently Amended): The method of claim 2 ~~use of a radiation-curable resin as claimed in claim 1 or 2, wherein the radiation curable resin is~~ obtained by polymer-analogously reacting

A) the at least one ketone-aldehyde resin or ~~and/or~~

B) the at least one urea-aldehyde resin or

the A and B) at least one ketone-aldehyde resin and at least one urea-aldehyde resin
and

C) the at least one compound comprising at least one ethylenically unsaturated moiety and at the same time at least one moiety which is reactive toward A), and/or B), or A and B), and at least one further hydroxyl-functionalized polymer.

Claim 4 (Currently Amended): ~~The method of use of a radiation curable resin as claimed in claim 3, wherein~~ the at least one further hydroxyl-functionalized polymer is selected from the group consisting of at least one polyether, at least one polyester, at least one polyacrylate, and mixtures thereof polyethers, polyesters and/or polyacrylate are contained as further hydroxy functional polymers.

Claim 5 (Currently Amended): ~~The use of a radiation curable resin as claimed in claim 3 or 4, wherein mixtures of the further polymers with the ketone-aldehyde resins A) and/or urea-aldehyde resins B)~~ The method of claim 3, wherein the at least one ketone-aldehyde resin A), the at least one urea-aldehyde resin B), or A) and B) are reacted polymer-analogously with the component at least one compound C).

Claim 6 (Currently Amended): ~~The method of claim 3 use of a radiation curable resin as claimed in claim 3 to 5, wherein, first, of all adducts of~~ the at least one the ketone-aldehyde resins resin A), and/or the at least one urea-aldehyde resins resin B), or the at least one ketone-aldehyde resin A) and the at least one urea-aldehyde resin B), with the at least one further hydroxyl-functionalized polymer polymers, are prepared with using suitable di- and triisocyanates, are prepared, and these adducts are then reacted polymer-analogously with component the at least compound C).

Claim 7 (Currently Amended): The method of claim 2, wherein the polymer-analogously reacting comprises the at least one ketone-aldehyde resin A) ~~The use of a radiation-curable resin as claimed in at least one of the preceding claims, and wherein C-H-acidic ketones are used in the at least one ketone-aldehyde resin A)~~ C-H-acidic ketones.

Claim 8 (Currently Amended): The method of claim 2, wherein the polymer-analogously reacting comprises the at least one ketone-aldehyde resin A), and wherein at least one ketone selected from the group consisting of ~~The use of a radiation-curable resin as claimed in at least one of the preceding claims, wherein ketones selected from acetone, acetophenone, methyl ethyl ketone, tert-butyl methyl ketone, heptan-2-one, pentan-3-one, methyl isobutyl ketone, cyclopentanone, cyclododecanone, mixtures of 2,2,4- and 2,4,4-trimethylcyclopentanone, cycloheptanone, cyclooctanone, and cyclohexanone, and mixtures thereof, is used as a starting material in the at least one ketone-aldehyde resin A)~~ are used as starting compounds, alone or in mixtures, in the ketone-aldehyde resins of component A).

Claim 9 (Currently Amended): The method of claim 2, wherein the polymer-analogously reacting comprises the at least one ketone-aldehyde resin A), and wherein at least one ~~The use of a radiation-curable resin as claimed in at least one of the preceding claims, wherein alkyl-substituted cyclohexanones having cyclohexanone comprising one or more alkyl radicals containing comprising in total 1 to 8 carbon atoms is used in the at least one ketone-aldehyde resin A), individually or in a mixture, are used in the ketone-aldehyde resins of component A).~~

Claim 10 (Currently Amended): The method of claim 9 ~~The use of a radiation-curable resin as claimed in claim 9, wherein the polymer-analogously reacting comprises the at least one ketone-aldehyde resin A), and wherein at least one ketone selected from the group consisting of 4-tert-amylcyclohexanone, 2-sec-butylcyclohexanone, 2-tert-butylcyclohexanone, 4-tert-butylcyclohexanone, 2-methylcyclohexanone, and 3,3,5-trimethylcyclohexanone, and mixtures thereof, is used in the at least one ketone-aldehyde resin~~ are used in the ketone-aldehyde resins of component A).

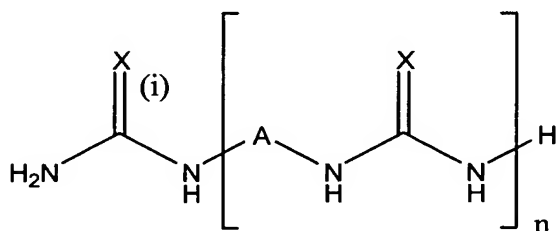
Claim 11 (Currently Amended): The method of claim 2, wherein the polymer-analogously reacting comprises the at least one ketone-aldehyde resin A) ~~The use of a radiation-curable resin as claimed in at least one of the preceding claims, and wherein at least one ketone selected from the group consisting of acetophenone, cyclohexanone, 4-tert-butylcyclohexanone, 3,3,5-trimethylcyclohexanone, and heptanone, and mixtures thereof, is used in the at least one ketone-aldehyde resin A)~~ alone or in a mixture, are used in component A).

Claim 12 (Currently Amended): The method of claim 2, wherein the polymer-analogously reacting comprises the at least one ketone-aldehyde resin A) ~~The use of a radiation-curable resin as claimed in at least one of the preceding claims, and wherein at least one aldehyde selected from the group consisting of formaldehyde, acetaldehyde, n-butyraldehyde, and/or isobutyraldehyde, valeraldehyde, and dodecanal, and mixtures thereof, is used as an aldehyde component in the at least one ketone-aldehyde resin A)~~ alone or in mixtures, are used as aldehyde component of the ketone-aldehyde resins in component A).

Claim 13 (Currently Amended): The method of claim 2, wherein the polymer-analogously reacting comprises the at least one ketone-aldehyde resin A) ~~The use of a radiation-curable resin as claimed in claim 12, and~~ wherein at least one molecule selected from the group consisting of formaldehyde, and/or paraformaldehyde, and/or trioxane, and mixtures thereof, is used as the aldehyde component of the at least one ketone-aldehyde resin A) ~~are used as aldehyde component of the ketone-aldehyde resins in component A).~~

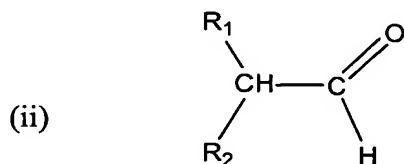
Claim 14 (Currently Amended): The method of claim 2, wherein the polymer-analogously reacting comprises the at least one ketone-aldehyde resin A), ~~The use of a radiation-curable resin as claimed in claim 1, 2 or 3, and~~ wherein at least one ketone selected from the group consisting of resin formed from acetophenone, cyclohexanone, 4-tert-butylcyclohexanone, 3,3,5-trimethylcyclohexanone, and heptanone, and mixtures thereof, alone or in a mixture, and formaldehyde (component A) is used are used as the ketone component and the aldehyde component of the at least one ketone-aldehyde resin A).

Claim 15 (Currently Amended): The method of claim 2, wherein the polymer-analogously reacting comprises the at least one urea-aldehyde resin B) ~~use of a radiation-curable resin as claimed in any one of the preceding claims, and~~ wherein [[as]] the at least one urea-aldehyde resin component B) use is made of comprises urea-aldehyde resins prepared ~~using~~ from a urea of the general formula (I)



~~in which~~ wherein X is oxygen or sulfur, A is an alkylene radical, and n is from 0 to 3,
~~with and~~

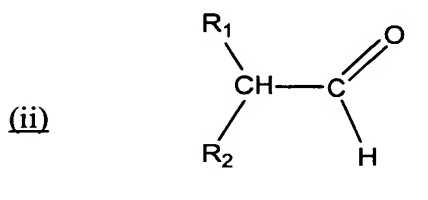
from 1.9 (n + 1) to 2.2 (n + 1) mol of an aldehyde of the general formula (ii)



~~in which~~ wherein R₁ and R₂ are hydrocarbon radicals each ~~having~~ comprising up to 20 carbon atoms,

~~or from formaldehyde are used,~~

or from 1.9 (n + 1) to 2.2 (n + 1) mol of an aldehyde of the general formula (ii)



wherein R₁ and R₂ are hydrocarbon radicals each comprising up to 20 carbon atoms, and formaldehyde.

Claim 16 (Currently Amended): The method of claim 2, wherein the polymer-analogously reacting comprises the at least one urea-aldehyde resin B), and wherein the at least one urea-aldehyde resin B) is prepared from at least one molecule selected from the group consisting of ~~use of a radiation curable resin as claimed in any one of the preceding claims, wherein urea-aldehyde resins prepared using urea and~~ urea, thiourea, methylenediurea, ethylenediurea, tetramethylenediurea, ~~and/or~~ hexamethylenediurea, and ~~[[or]] mixtures thereof are used as component B).~~

Claim 17 (Currently Amended): The method of claim 2, wherein the polymer-analogously reacting comprises the at least one urea-aldehyde resin B) ~~use of a radiation-curable resin as claimed in any one of the preceding claims, and~~ wherein the at least one urea-aldehyde resin B) is prepared from at least one aldehyde selected from the group consisting of urea-aldehyde resins prepared using isobutyraldehyde, formaldehyde, 2-methylpentanal, 2-ethylhexanal, and 2-phenylpropanal, and mixtures thereof ~~or mixtures thereof are used as component B).~~

Claim 18 (Currently Amended): The method of claim 2, wherein the polymer-analogously reacting comprises the at least one urea-aldehyde resin B, and ~~use of a radiation-curable resin as claimed in any one of the preceding claims, wherein~~ the at least one urea-aldehyde resin B comprises, in polymerized form, monomers of urea-aldehyde resins prepared using urea, isobutyraldehyde, and formaldehyde ~~are used as component B).~~

Claim 19 (Currently Amended): The method of claim 2 ~~use of a radiation-curable resin as claimed in at least one of the preceding claims, wherein~~ the at least one compound C) comprises maleic acid ~~is used as component C).~~

Claim 20 (Currently Amended): The method of claim 2 ~~use of a radiation-curable resin as claimed in at least one of the preceding claims, wherein~~ the at least one compound C) comprises (meth)acrylic acid and/or derivatives ~~are used as component C).~~

Claim 21 (Currently Amended): The method of claim 2, The use of a radiation-curable resin as claimed in claim 20, wherein the at least one compound C) comprises

(meth)acryloyl chloride, glycidyl (meth)acrylate, (meth)acrylic acid, ~~and/or the low~~
molecular mass alkyl esters thereof, ~~and/or anhydrides thereof, or mixtures of these~~
compounds alone or in a mixture, are used as component C).

Claim 22 (Currently Amended): The method of claim 2, wherein the at least one
compound C) comprises at least one compound selected from the group consisting of ~~The use~~
~~of a radiation-curable resin as claimed in at least one of the preceding claims, wherein~~
~~isocyanates which possess an ethylenically unsaturated moiety, preferably (meth)acryloyl~~
~~isocyanate, α,α -dimethyl-3-isopropenylbenzyl isocyanate, (meth)acryloylalkyl isocyanate~~
~~with alkyl spacers possessing 1 to 12, preferably 2 to 8, more preferably 2 to 6 carbon atoms,~~
~~preferably methacryloyl ethyl isocyanate, and/or methacryloyl butyl isocyanate, and mixtures~~
thereof are used as component C).

Claim 23 (Currently Amended): The method of claim 2, wherein the at least one
compound C) comprises at least one moiety selected from the group consisting of ~~The use of~~
~~a radiation-curable resin as claimed in at least one of the preceding claims, wherein reaction~~
~~products of at least one hydroxyalkyl (meth)acrylates (meth)acrylate whose comprising an~~
~~alkyl spacers possess~~ spacer comprising 1 to 12, preferably 2 to 8, more preferably 2 to 6
carbon atoms, at least one diisocyanate, at least one polyisocyanate, and combinations
thereof with diisocyanates and/or polyisocyanates are used as component C).

Claim 24 (Currently Amended): The method of claim 23, wherein the at least one
compound C) comprises at least one diisocyanate, and wherein the at least one diisocyanate
~~use of a radiation-curable resin as claimed in claim 23, wherein diisocyanates is~~ is selected from
the group consisting of cyclohexane diisocyanate, methylcyclohexane diisocyanate,

ethylcyclohexane diisocyanate, propylcyclohexane diisocyanate, methyldiethylcyclohexane diisocyanate, phenylene diisocyanate, tolylene diisocyanate, bis(isocyanatophenyl)methane, propane diisocyanate, butane diisocyanate, pentane diisocyanate, hexane diisocyanate ~~such as, for example, hexamethylene diisocyanate (HDI) or 1,5-diisocyanato-2-methylpentane (MPDI)~~, heptane diisocyanate, octane diisocyanate, 1,6-diisocyanato-2,4,4-trimethylhexane, 1,6-diisocyanato-2,2,4-trimethylhexane (TMDI), 4-isocyanatomethyloctane 1,8-diisocyanate (TIN), decane di-isocyanate, and decane-triisocyanate, undecane di-isocyanate, and undecane-triisocyanate, dodecane di-isocyanate, and dodecane tri-isocyanate, ~~triisocyanates~~, isophorone diisocyanate (IPDI), bis(isocyanatomethylcyclohexyl)methane (H₁₂MDI), isocyanatomethylmethylcyclohexyl isocyanate, 2,5(2,6)-bis(isocyanatomethyl)bicyclo-[2.2.1]heptane (NBDI), 1,3-bis(isocyanatomethyl)cyclohexane (1,3-H₆-XDI), 1,4-bis(isocyanatomethyl)cyclohexane (1,4-H₆-XDI), and mixtures thereof alone or in mixtures, are used.

Claim 25 (Currently Amended): The method of claim 23, wherein the at least one compound C) comprises at least one polyisocyanate, and wherein the at least one polyisocyanate is ~~use of a radiation-curable resin as claimed in claim 24, wherein polyisocyanates prepared by trimerizing, allophanatizing, biuretizing, and/or urethaneizing, or a combination thereof, simple diisocyanates are used.~~

Claim 26 (Currently Amended): The method of claim 2 ~~use of a radiation-curable resin as claimed in at least one of the preceding claims, wherein the at least one compound C) comprises the reaction products, in a molar ratio of from 1:1 to 1:1.5, preferably 1:1, of hydroxyethyl acrylate, and/or hydroxyethyl methacrylate, or hydroxyethyl acrylate and~~

hydroxyethyl methacrylate, reacted with isophorone diisocyanate, and/or H₁₂MDI, and/or HDI, or a combination thereof are used as component C).

Claim 27 (Currently Amended): The method of claim 2 ~~use of a radiation-curable resin as claimed in at least one of the preceding claims,~~ wherein 1 mol of the at least one ketone-aldehyde resin A), and/or the at least one urea-aldehyde resin B), or A) and B), - based on M_n - and from 0.5 to 15 mol, ~~preferably from 1 to 10 mol, in particular from 2 to 8 mol of the~~ at least one compound C) unsaturated compound are used.

Claims 28-29 (Canceled).

Claim 30 (Currently Amended): The method of claim 2 ~~use of a radiation-curable resin as claimed in at least one of the preceding claims,~~ wherein further comprising forming the adhesive, the ink, the polish, the varnish, the pigment paste, the pigment masterbatch, the filler, the sealant, the insulant, or the cosmetic article with a material comprising at least one oligomer, at least one polymer, or at least one oligomer and at least one polymer oligomers and/or polymers are present.

Claim 31 (Currently Amended): The method of use of a radiation-curable resin as ~~elaimed in claim 30,~~ wherein ~~further oligomers and/or polymers~~ the material is selected from the group consisting of polyurethanes, polyesters, polyacrylates, polyolefins, natural resins, epoxy resins, silicone oils, ~~and~~ silicone resins, amine resins, fluoro polymers, and mixtures thereof and derivatives thereof are present, alone or in combination.

Claim 32 (Currently Amended): The method of claim 2, further comprising forming the adhesive, the ink, the polish, the varnish, the insulant, or the cosmetic article with at least one auxiliary and at least one additive ~~use of a radiation curable resin as claimed in at least one of the preceding claims, wherein auxiliaries and additives are present.~~

Claim 33 (Currently Amended): The method of ~~use of a radiation curable resin as~~ ~~claimed in~~ claim 32, wherein the at least one auxiliary and the at least one additive are selected from the group consisting of ~~auxiliaries and additives selected from~~ inhibitors, organic solvents, with or without unsaturated moieties, surface-active substances, oxygen scavengers, ~~and/or~~ free-radical scavengers, catalysts, light stabilizers, color brighteners, photoinitiators, photosensitizers, thixotropic agents, antiskinning agents, defoamers, dyes, pigments, fillers, ~~and/or~~ dulling agents, and mixtures thereof ~~are present.~~